



October 2026 - Issue 105

Discovery Digest is a glimpse into how University of Saskatchewan research, scholarly and artistic works are making a difference for Saskatchewan, Canada and the world. Curated by the Research Profile and Impact unit, Office of the Vice-President Research. [Feedback welcome!](#)

This Month's Stories



[USask reaches its highest-ever spot in international ranking](#)

The University of Saskatchewan (USask) has achieved its highest-ever placement in the 2027 Times Higher Education (THE) World University Rankings, which evaluates universities based on their primary activities of teaching, research, knowledge transfer, and international outlook.

In the latest THE rankings, USask ranked in the 351-375 tier among nearly 2,300 universities worldwide. This is the university's strongest performance in the rankings to date and coincides with the largest number of participating institutions ever included.

“USask always strives to find success locally and globally, and while these rankings are not the totality of what USask does, they are a reflection of our excellent reputation and profile around the world as a top-tier university,” said USask Vice-President Research **Baljit Singh**.

USask has recently enjoyed strong momentum in international rankings, earning a top-10 global ranking in Water Resources and a top-100 ranking in Earth Sciences in the newest ShanghaiRankings Global Ranking of Academic Subjects.

USask prepares to welcome international researchers for 2026 PAW Congress

Fostering international connections are essential as solutions are sought for complex global issues.

The USask People Around the World (PAW) International Congress 2026 will bring together researchers, scholars, government representatives, industry partners, and community members to discuss developing technologies and research solutions to help build a sustainable future.

The theme for the PAW 2026 Congress is “Critical connections: The path to responsible minerals, sustainable energy, and thriving communities.”

"Developing our critical minerals resources here in Canada will be crucial for the future of energy and technology," said **Dr. Michael Bradley (PhD)**, the dean of USask's College of Engineering and one of the co-chairs of PAW Congress 2026. "USask will lead conversations with global partners so we can better position our local talent, expertise, and resources on the world stage."



USask collaborates with Siemens, Microchip Technology, and Mitacs to help build Canada's future semiconductor workforce

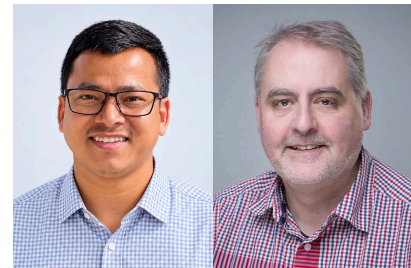
Playing a significant role in the success of Saskatchewan's burgeoning tech sector are unique collaborations between partners in academia, industry, and government-supported innovation, who are working together to strengthen Canada's semiconductor talent pipeline through hands-on curriculum development and industry engagement.

An example of this innovative collaboration includes two new courses that are now offered to USask electrical engineering graduate studies students. Through funding from national innovation not-for-profit Mitacs, EDA (electronic design automation) industry experts from Siemens in Saskatoon and Microchip Technology Canada are providing hands-on learning opportunities to prepare USask students with practical semiconductor design skills that align with current industry needs, thereby accelerating their workforce readiness.

“This collaboration demonstrates how partnerships between universities and global technology leaders can help build a strong talent pipeline and support the growth of Saskatchewan's high-tech sector. By working together, we are creating opportunities that benefit students, industry, and the broader community,” said **Dr. Li Chen (PhD)**, a professor of electrical and computer engineering at USask’s College of Engineering.

[GIFS research unlocks new camelina genome insights, creating new opportunities for producers and industry](#)

New research from scientists with the Global Institute for Food Security (GIFS) at USask and Agriculture and Agri-Food Canada (AAFC) could help move camelina closer to becoming a more reliable and valuable crop option for producers in Saskatchewan and beyond.



Camelina is a relatively new oilseed gaining interest for its potential use in food, livestock feed, and renewable fuel markets. A newly published research paper provides insights into the camelina genome that could give breeders new tools to develop varieties with improved performance, stronger adaptability, and traits that matter at the farm level.

“Camelina is an ancient crop, but there is a lot of interest in it now to develop it as a modern crop. However, it has very low genetic diversity, and we wanted to increase that,” said **Dr. Raju Chaudhary (PhD)**, a research associate at GIFS and one of the lead authors on the new paper published in Nature Communications.

Dr. Andrew Sharpe (PhD), a senior research scientist at GIFS and one of the contributors to the paper, said camelina has three main agri-product opportunities: food, animal feed, and potential biofuel applications.

[New insights into lung health risk for female farmers](#)

Farmers are exposed daily to a variety of potential contaminants such as endotoxins (substances associated



with certain bacteria) in dust, which are well-known to trigger lung inflammation and asthma. However, how endotoxins specifically impact women's health is not well understood, particularly when there is also exposure to a herbicide called glyphosate, widely used in agricultural work.

Now, USask researchers have detected lung effects in female mice models just five days after a combined exposure, simulating the same quantity of endotoxins and herbicide farmers could breathe over a work week.

Looking for more research stories? [Visit Discovery Digest online.](#)

New scientists bring global animal health expertise to VIDO

From emerging H5N1 influenza to African swine fever, three scientists recruited from around the world are joining the Vaccine and Infectious Disease Organization (VIDO) to address diseases that threaten animals and food security in Canada and around the world.



Recruited to Saskatchewan from North America, Africa and Europe, the three scientists bring expertise in influenza, livestock vaccines and swine immunity. Their arrival strengthens VIDO's capacity to address infectious disease challenges affecting animals and food production.

Dr. Troy Sutton (PhD), Dr. Anna Lacasta (PhD), and Dr. Leonie Bettin (PhD) all joined VIDO in 2026.

Together, the three scientists add new perspectives to VIDO's longstanding animal health research and strengthen its work to develop better vaccines, protect livestock and support producers and food security.



Canadian Centre for Rural and Agricultural Health celebrates milestone 40th anniversary

The Canadian Centre for Rural and Agricultural Health (CCRAH) began more than four decades ago for a simple reason: to support the health and safety of rural and agricultural people in Saskatchewan.

“Saskatchewan is the breadbasket of Canada. Agriculture and rural are what make Saskatchewan,” said **Dr. Shelley Kirychuk (PhD)**, the current director of CCRAH. “We are rural, we represent agriculture, and we support the people that bring food to the world.”

In 2026, the CCRAH celebrated its 40th anniversary — a tremendous milestone for the centre, the university, and rural and agricultural-focused health research in Canada and around the world.

College of Medicine students explore research through summer projects

Students in USask’s undergraduate biomedical sciences and Doctor of Medicine (MD) programs participate in summer research opportunities across a wide range of disciplines. Working under the supervision of faculty, students contribute to projects that advance knowledge and improve health outcomes while learning more about the research process.



These experiences help students develop research skills and deepen their understanding of the role of research in health care. For participants in the interdisciplinary program, the experience can encourage further study at the graduate level.

This year, more than 90 students engaged in summer research projects within the College of Medicine. In addition to completing their projects, students presented their work at a virtual Undergraduate Student Showcase on October 14.



Containment Level 4 in Saskatoon: What you should know



USask archaeology graduate honours relatives through research at residential school sites



USask to celebrate alumnus Tim Gitzel with honorary degree during Fall Convocation

Season 3 Launch – USask Signature Series Podcast

The USask Signature Series Podcast is an exploration and celebration of the interesting and the innovative, the fun and the fantastic, the cutting-edge and the creative side of USask research.

You'll hear from USask experts across a variety of disciplines and research areas as they tackle the questions and opportunities the world needs today.

New this season, the USask Signature Series will be available in both audio and video formats!

Check out the podcast on Spotify, Apple Podcasts, YouTube, or wherever you get your podcasts!

Here are the newest episodes of the USask Signature Series:

- **S3E01 – VIDEO: What makes your shoulders so complex?**
- **S2E12 - How does USask research create impact we can see and feel?**
- **S2E11 – What do we need to know about nuclear energy?**

If you have an idea for an episode of the podcast, please email research.communications@usask.ca.



Stay connected with USask research news

Make sure to follow USask Research on Instagram at [@usaskresearch](https://www.instagram.com/usaskresearch), and on [LinkedIn](#) and [Twitter/X](#) to stay in-the-know, with exciting research news delivered right to your newsfeed. Don't forget to also follow [@VPR_USask](#) and [@USask](#) on Twitter/X for more of the latest research and university news.



Use the hashtag **#USaskResearch** when sharing USask-related research findings, publications or achievements on social media.

In *The Conversation*

Being involved in *The Conversation* is a unique and renowned avenue for sharing research and study with both colleagues and the public. We strongly encourage researchers to explore *The Conversation* as a way to share and distribute their expertise! Feel free to reach out to research.communications@usask.ca if you have questions.

Interested in submitting an article for *The Conversation*? Learn more at the [link here](#).

Upcoming events



PAW 2026 public lecture

Join us Oct 22 at 5:00pm for a public lecture featuring Ralph Goodale, Canada's former High Commissioner in the United Kingdom and Senior Minister in the Government of Canada. His talk 'The turmoil of our times: Reflections on Canadian resources and values' is free and open for

anyone to attend. Register at the [link here](#).

- PAW Public Lecture – Oct. 22, 5:00pm – Marquis Hall Events Centre

Campus Conversations – October 2026

You're invited to join Vice-President Research **Baljit Singh** for Campus Conversations on October 19, 12:00-12:45 in Admin Building C280.

These constructive discussions bring together OVPR leadership and members of the USask research, scholarly, and artistic works (RSAW) community to share ideas and support RSAW endeavors. All faculty, staff, postdoctoral fellows and students are welcome!



- Campus Conversations – Oct. 19, 12:00-12:45 – Admin Building C280



Agriculture Research Day

Wednesday, October 21 is Agriculture Research Day in the USask College of Agriculture and Bioresources. Students (and staff) are invited to register a poster for presentation and a chance to win cash prizes.

Whether you're working in the lab, field, greenhouse, or community, this is your chance to showcase your research and connect with others who are passionate about advancing agriculture.

- Agriculture Research Day – Oct. 21 – Agriculture Building second floor and CSRB link

School of Public Health Student Research Conference

The Annual School of Public Health Student Conference aims to showcase the work of the Master of Public Health practicum students and the research projects of the thesis students from the PhD in Public Health, Collaborative Biostatistics, Epidemiology, Master of Public Health – thesis, and Vaccinology and Immunotherapeutics programs.

- School of Public Health Student Research Conference – Oct. 30, 11:30am-4:40pm – Health Sciences Building, D-Wing Atrium, 2nd and 3rd floor

University Library Open Access Week

This year's theme is "The Cost of Knowledge" challenging us to consider the costs of creating, sharing, and sustaining knowledge—particularly when these costs are driven by commercial rather than public interests. Play our online Price of Knowledge quiz to learn more about what the library pays for access to knowledge and to support USask authors; or play in-person at our Open Access Carnival in the Arts Tunnel – Oct 20 @ 1–3pm.

We're also hosting several online sessions on open access publishing and complying with the upcoming changes to the Tri-Agency Open Access Policy on Publications:

- *Affordable Open Access Publishing* – Oct.19, 12-1pm
- *The new Tri-Agency Open Access Policy: An Overview* – Oct. 21, 12-1pm
- *The new Tri-Agency Open Access Policy: Using HARVEST to Comply* – Oct 22, 12-1pm

For more details and to register, click the [link here](#).

Have any upcoming research events?

Please email research.communications@usask.ca with your event title, information and any links for registration to include in the Discovery Digest.

Information and Community for Researchers

The AI Ready Researcher Series

Help create an environment that supports AI ready research by joining your fellow researchers in conversation and experimentation to explore the opportunities and risks of using genAI in research, scholarship and artistic works at USask. This will help inform future USask supports and guidance for researchers.



This series will be held every Thursday from Oct. 8th to Oct. 29th. It consists of two facilitated discussions and two experimentation sessions. Please join us for all sessions or just the ones you are most interested in.

Presenters: **Trevor Batters, Kurt Bergsma, Catherine Boden, Ann Liang**

Learn more and register at the [link here](#).

Help shape the return of the Whelen Lecture Series

USask's Whelen Lecture Series is returning in 2027, and we're inviting the USask community and beyond to help shape its next chapter.

As preparations begin for the relaunch of this signature event, we're seeking suggestions for distinguished thinkers, innovators, and leaders whose ideas can challenge perspectives, spark meaningful discussion, and inspire action. We welcome recommendations from a broad range of disciplines, including but not limited to science and innovation, technology, public policy, health and wellness, arts and culture, sustainability, and social impact.

Who would you like to hear from at USask?

Submit your speaker suggestion by October 31, 2026 at the [link here](#).

AI literacy resources expand with a new faculty-focused tutorial

Artificial intelligence (AI) is shaping teaching, research and administrative work at USask. Staff and faculty are encouraged to explore [USask's general AI literacy tutorial](#), which introduces foundational concepts. A new faculty-focused tutorial builds on this resource and supports instructors as they consider how AI may or may not be applicable in teaching and assessment. The tutorial is designed to be completed in stages, allowing modules to be undertaken as time permits, with each module taking no more than 30 minutes. Access the new faculty tutorial at the [Canvas link here](#).

If you have any important information for USask researchers, please contact
[**research.communications@usask.ca!**](mailto:research.communications@usask.ca)

Submitting to Discovery Digest

If you would like to submit a research-focused event or news item for consideration for Discovery Digest, please submit a link and a description of no more than 150 words to [**research.communications@usask.ca**](mailto:research.communications@usask.ca) with the subject line "Submission – Discovery Digest," along with the month and year you are submitting for.

Please indicate whether your submission is a recommendation for a news item, event or information for researchers. If you would also like to submit a photo, please make sure it is a 3:2 aspect ratio image.

The Discovery Digest goes out on or as close to the 15th of each month as possible.
Please ensure any submissions are sent in by at least the 8th of each month to be considered for inclusion.

In the news

- Oct. 14 – [**This Alberta referendum question could stall the West Coast pipeline, says law professor**](#)
- Oct. 12 – SaskToday – [**Saskatchewan ministers forge pathways in India**](#)
- Oct. 11 – CBC News – [**Sask. farmers seeing gains from protein craze**](#)
- Oct. 7 – Global News – [**USask professor recognized for pediatric stem cell research**](#)
- Oct. 4 – CBC News – [**How would 2 large nuclear reactors affect Saskatchewan's economy and land?**](#)

- Sept. 30 – CBC News – [Mosquitoes still bugging Regina residents amid late population boom](#)
 - Sept. 29 – Tech Times – [Permafrost that turns six Alaska National Park rivers into mine-grade acid zones](#)
 - Sept. 29 – CBC News, CJME – [Premier Scott Moe goes big on nuclear with plans to explore 2 large nuclear reactors in northwest Sask.](#)
 - Sept. 28 – The Globe and Mail – [Preparing for the next pandemic: Why research infrastructure is Canada's first line of defence](#)
 - Sept. 20 – The Western Producer – [Research turns Saskatchewan peas into something more](#)
-

Banner image photo credit: **Survival Mode** - Photo by **Gabriela Sieminski-Hauck**,
Alumnus, Art and Art History, School for the Arts

Images of Research 2026 - *Research in Action* winner

This apple remains frozen on its branch through a Saskatchewan winter; its tissues fractured by ice crystal formation during repeated freeze–thaw cycles. In temperatures below –30°C, cellular water expands, rupturing membranes, and accelerating decomposition. Meanwhile, the tree enters deep dormancy, slowing metabolism, sealing vascular pathways, and conserving energy until spring. My research studies living organisms in extreme prairie climates, observing how stress reshapes biological form. These transformations inform my art practice and therapeutic inquiry: how cycles of rupture, suspension, and renewal in nature parallel psychological endurance. By translating organic structures into sculptural and expressive forms, I explore how creative processes can model resilience. What appears frozen and lifeless is not failure; it is adaptation in progress.



We want your feedback! [What do you think of Discovery Digest?](#)

You are receiving this email because you either subscribed manually to Discovery Digest or were a former subscriber to USask Monthly Research Update. Questions? Comments? Send an email to [Research Profile and Impact](#).

